RESOURCE AND PATIENT MANAGEMENT SYSTEM

EHR Laboratory Package for Small Sites without a Laboratory Professional

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Office of Information Technology (OIT)
Division of Information Resource Management
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&

Oklahoma City Cohort –
Kanza Health Clinic, Kickapoo Tribal Health Center, Urban Inter Tribal Center of Texas, Indian Health Care Resource Center

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Introduction

Purpose of "LIS for Non-Laboratorians" Training

The Resource Patient Management System Electronic Health Record (RPMS EHR) is a suite of software applications designed to move most clinical transactions from paper-based to an electronic environment. The EHR uses upgrades of existing RPMS applications and clinical data, but provides a graphical user interface (GUI) that facilitates access to, and direct entry of this data by clinical users. The two most significant clinical enhancements provided by the EHR are the direct entry of orders (pharmacy, laboratory, radiology, nursing, etc.) by providers, and the on-line documentation of clinical encounter notes. In addition, the EHR will make clinical decision support tools available to providers at the point of care, and will make the medical record immediately accessible to all authorized users.

Implementation of an electronic medical record (EMR) at any health care organization is a complex and lengthy process, requiring preparation and changes in essentially all areas of a medical facility. Rolling out an electronic record system at any facility will require a considerable training effort at the time of implementation, as well as an ongoing program of training and support.

This course focuses on the use of the Laboratory module for non-Laboratorians, particularly at facilities without Laboratory professionals.

Prerequisites

This class will be oriented towards non-Laboratory professionals (i.e., other than Medical Laboratory Technicians [MLT] and Medical Laboratory Technologists [MT]) who are responsible for processing Laboratory Tests at their facilities. Facilities will be able to work on their own systems during the training. This course assumes that participants have limited knowledge of the RPMS Laboratory Suite (RPMS-LIS).

Background

On February 17, 2009, President Barack H. Obama signed into law the American Recovery and Reinvestment Act of 2009 (ARRA). ARRA provides incentives to encourage hospitals and office-based physicians to adopt EHRs and other health information technology (HIT) solutions that reduce costs by improving quality, safety, and efficiency. ARRA contains numerous technology and privacy provisions with aggressive timelines for completion. Many of these ARRA milestones are related to the standards and work of the Healthcare Information Technology Standards Panel.

Health Information Technology for Economic and Clinical Health Act

The Health Information Technology for Economic and Clinical Health Act (HITECH) is a focal point of ARRA and represents an investment of more than $19 billion towards healthcare information technology (IT)-related initiatives. The $19 billion dedicated to HITECH is divided into two portions: (a) $17 billion toward a Medicare/Medicaid incentive reimbursement program for both healthcare organizations and providers who can demonstrate "meaningful use" of an approved EHR; and (b) $2 billion available to providers located in qualifying rural areas, providers serving underserved urban communities, and Indian tribes. Meaningful use of an approved EHR will be required in order for providers to qualify for, and continue to receive, incentives.

Incentive Payments

ARRA will provide incentive payments through Medicare and Medicaid reimbursement systems to encourage providers and hospitals to adopt EHRs and HIT. Hospitals that demonstrate meaningful use of certified EHRs and other HIT may be eligible for between $2 million and $8 million. Incentive payments are triggered when a provider or hospital demonstrates that it has become a "meaningful EHR user." The highest incentive payments will be granted to hospitals that adopt EHR technology in the years 2011, 2012, or 2013. Reduced incentive payments are granted to hospitals that adopt EHR technology in the years 2014 or 2015, while no incentive payments are granted to hospitals that adopt EHR technology after 2015. Providers and hospitals that fail to meet this time limit will be subject to penalties in the form of reduced Medicare reimbursement payments beginning in 2017.

Meaningful Use

Meaningful Use (MU) is a term used by CMS to ensure that providers and hospitals that have adopted certified EHR are using the technology to further the goals of information exchange among health care professionals. EPs (eligible providers) and EHs (eligible hospitals) will achieve meaningful use if they: (a) demonstrate use of certified EHR technology in a meaningful manner, (b) demonstrate the certified EHR technology provides for electronic exchange of health information to improve quality of care, and (c) use certified EHR technology to submit information on clinical quality and other measures.

Achieving meaningful use will be accomplished in three stages. Stage 1 will begin in 2011, Stage 2 will begin in 2013, and Stage 3 will begin in 2015. The criteria for achieving meaningful use will increase with each stage and will build upon the prior stage. Medicare and/or Medicaid incentives are available to providers and hospitals who become meaningful users of certified EHR technology, with the maximum incentives being given to EPs and hospitals that become meaningful users in Stage 1. Hospitals may be eligible for both Medicare and Medicaid incentives but EPs must choose between the two incentive programs.

For the 2011 Medicare incentives, EPs must report on three core measures and a set of specialty measures which vary depending on the EP's specialty. Eligible hospitals must report on a set of 35 measures that includes emergency department, stroke, and VTE, among other measures. Reporting of clinical quality measures in 2011 will be accomplished by attestation. Beginning in 2012 for both Medicare and Medicaid incentives, EPs and hospitals must submit information electronically on both the health IT functionality and clinical quality measures.

*Meaningful Use Standards and Measures **PENDING UPDATES***

As required to achieve MU, eligible hospitals (EH) and eligible providers (EP) must report their performance on two types of measures: (a) functional and interoperability measures and (b) clinical quality measures.

The functional and interoperability measures aim to improve quality, safety, efficiency and reduce health disparities. Reporting periods for measures include (a) a continuous 90 day period for the first year and (b) the entire year for all other years. There are 25 measures for EPs: eight measures require a "Yes" or "No" answer while 17 measures require both a numerator and denominator. Eligible Hospitals require 23 measures: ten measures requiring a "Yes" or "No" answer and 13 requiring a numerator and denominator.

Table 1: Summary Overview of Meaningful Use Core Set Objectives

Course Learning Objectives

This hands-on class provides a basic overview of the RPMS-LIS and preparation required for processing Laboratory Tests. Participants are provided with the knowledge, skills, and abilities to use the RPMS-LIS in its use and offer participants the tools necessary for processing and reporting Laboratory Tests. At the end of this session participants will be able to:

- Identify the role of the Laboratory Information System (LIS) Suite in the big picture of Electronic Health Management.
- Delineate the role and responsibilities of the LIS Manager in a small Laboratory without an MT or MLT.
- Define the LIS workflow and its interactions with other RPMS modules.
- Summarize basic Laboratory terminology.
- Recognize the importance of CLIA, Joint Commission, and other regulations as they relate to Laboratory Policies and Procedures.
- Perform basic RPMS tasks.
- Describe the Anatomy of a Laboratory test.
- Order Laboratory Tests.
- Accession Laboratory Tests.
- Track Laboratory Tests.
- Result Laboratory Tests.
- Examine and use the Point of Care Button (POC).
- Describe the Reference LIS Interface.
- Generate Patient LIS Reports.
- Populate test taxonomies required for proper data collection in iCare, Diabetes Management System, and GPRA reporting.
- Maintenance of the RPMS Lab Package

Instructors and Facilitators

Laboratory Consultants and Area CACs

Area Office and OIT Professionals

- Janna Morris, MPA, MT (ASCP), Office of Information Technology Laboratory Consultant
- Pam Spaeth, MT (ASCP), Office of Information Technology Laboratory Consultant
- Jennette Chase-Wilson, MS, MT (ASCP), Office of Information Technology Laboratory Consultant
- Amy Rubin, Oklahoma Area Clinical Applications Coordinator
- Robin Thompson, Oklahoma Area Clinical Applications Coordinator

Disclosure Statements: All of the faculty for this course have completed the disclosure process and have indicated that they have no significant financial relationships or affiliations with any product or commercial manufacturer that might constitute a conflict of interest. Additionally, they have agreed to use generic or multiple trade names when referring to medications and will identify an "off-Label" or experimental uses of medication.

Detailed Agenda – Central Time

Day 1		
8:30	**Welcome and Introductions** **Janna Morris** At the end of this session participants should be able to: • Review the course agenda • Navigate the WebEx sessions • Review how to enroll in class • Ensure Privacy and Security of Personal Health Information (PHI)	
9:00	**Overview of ThinkTank© (cont.)** **Janna Morris** At the end of this session participants should be able to: • Identify Participant Needs and Expectations • Utilize ThinkTank© for brainstorming and ideas	
9:15	**EHR Overview as it pertains to the Laboratory in the Patient Life Cycle** **Pam Spaeth** • Examine the Importance of Patient Registration. • Order a Laboratory Tests using EHR to include Reference Lab Tests and POC. • Process Reference Laboratory results and correcting POC results. • Review Laboratory Clinical results in EHR including those on the Lab Tab, Health Summary and the Visit Summary • Review the process for diagnosing, treating and discharging patients based upon completed Laboratory results. • Define Roles and Responsibilities of the Non-Laboratorian RPMS-Lab Manager, coordinator, and end-user. • Examine the interaction between the various users of the RPMS system in the management of Laboratory Data.	**Tab 1**
9:45	**Lab Suite Overview** **Pam Spaeth** At the end of this session, participants should be able to: • Examine the role of the Lab Suite in the big picture of Electronic Health Record. • Delineate the Lab workflow and interactions with other RPMS modules: – Discuss the Lab CPT file if using billing - Business Implications. – CRS, MU, and DM Clinical Reports. • Develop a Contingency Plan. Compare and contrast CLIA, AAAHC, FQHC, RHC, CHC, TJC, CMS, and other regulations as related to Laboratory Policies and Procedures.	**Tab 2**
10:30	Break	
10:45	**Basic RPMS Skills** **Jennie Chase-Wilson** At the end of this session, participants should be able to:	**Tab 3**

	• Execute basic RPMS functions.	
12:00	Lunch	
1:30	**LOINC** **Jennie Chase-Wilson** At the end of this session, participants should be able to: • Understand the purpose of UCUM • Use the UCUM Applications • Add a LOINC code to a test • Use the IHS LOINC Applications	**Tab 3**
2:30	Break	
2:45	**Anatomy of a Lab Test – Terminology** **Pam Spaeth** At the end of this session, participants should be able to examine and describe the Anatomy of a Laboratory test: • Test name vs. synonym • Panel vs. single test. • Data Name – Format of test results. • Site specimen: – Reference ranges. – Critical values. • Describe POC Testing. – Explain importance and use of Package Inserts for POC tests. – Define and use Result comments. – Define Requesting Provider. – Describe Ordering Location. • Describe nursing Quick Order for POC testing	**Tab 4**
3:45	**Requesting a New Test or Retiring a Test no longer in use** **Jennie Chase -Wilson** At the end of this session, participants should be able to: • Describe the elements needed to request a new test to be built. • Describe where to find the elements that are needed for a new test. • Describe where to go to request a new test or retire an old test. Describe how a test is retired.	**Tab 5**
4:30	**Adjourn** • Wrap-up	

Day 2 Tuesday		
8:30	**Morning Greeting** • Questions from yesterday	
8:45	**Populating Taxonomies** **Janna Morris** At the end of this session, participants should be able to: • Populate taxonomies. Describe the relationship of taxonomies in iCare, Diabetes Management System, and GPRA reporting.	**Tab 6**
9:45	**EHR POC Button** **Pam Spaeth** At the end of this session, participants should be able to: • Differentiate between Laboratory vs. Nursing/Text Quick Orders. • Order and result Laboratory Tests using the POC Button. • Enter canned and free text comments.	**Tab 7**
10:30	**Break**	
10:45	**Order Laboratory Tests** **Jennie Chase-Wilson** At the end of this session, participants should be able to: • Order and describe ways to order Laboratory Tests: – Quick Orders. – Without Quick Orders. – Paper Requisitions. • Describe options for "Nature of Order" (Written, verbal, telephone, policy, electronic): – Discuss RPMS CPRS CPOE Report – Find and review orders.	**Tab 8**
12:00	**Lunch**	
1:00	**Class Activity: Order Laboratory Tests** **OIT Lab Consultants** • Order Lab tests on Four Different Demo/Test Patients • Open Orders Tab and change view • Locate the order placed • Write down patient names and/or chart numbers, and order numbers for the next activity • View Lab Test Status	**Tab 8**
2:00	**Accession Tests** **Janna Morris** At the end of this session, participants should be able to: • Accession tests. • Anatomy of an accession number • Discuss printing Labels and/or shipping manifest for Reference LIS Perform Accessioning (exercise).	**Tab 9**
3:00	**Break**	

3:15	**Class Activity: Accession Tests** • Retrieve patients and orders numbers from previous activity • Accession orders and record the accession numbers for the next activity • View Lab Test Status	**Tab 9**
4:30	**Adjourn** • Wrap-up • Instructions for Office Hours	

Day 3 Wednesday		
8:30	**Morning Greeting** • Questions from yesterday	
8:45	**Result Lab Tests** **Jennie Chase-Wilson** At the end of this session, participants should be able to result a Lab test through utilization of: • EA (auto-instruments/ref Lab). • EM (manual/modify). • Result comments. • Notification process. • The Reference Lab Interface. • Describe result entry outcome - the relationship between the Lab Suite and PCC • Diabetes Management System (DM), EHR, Women's Health (WH), or iCare.	**Tab 10**
9:45	**Class Activity: Result Lab Tests** **OIT Lab Consultants** • Retrieve patients and accession numbers from previous activity • Result each accessioned test • View Lab Test Status	**Tab 10**
10:00	**Break**	
10:15	**Tracking Lab Tests** **Pam Spaeth** At the end of this session, participants should be able to track test status by using the following options: • Incomplete test list. • Order test status. • Accession List by Date report. • Review by Order Number. • Lookup Accession. • EHR Orders and Lab tabs.	**Tab 11**
10:45	**Documentation of Lab Only Visits** **Pam Spaeth** At the end of this session, participants should be able to track test status by using the following options: • Create a visit • Select a Purpose of Visit (POV)	**Tab 12**
11:30	**Lunch**	
12:30	**Laboratory Reports**	**Tab 13**

	Janna Morris At the end of this session, participants should be able to: • Compare and contrast Laboratory Reports within the EHR Lab tab and Reports tab. • Generate a Laboratory Interim Report. • Create a Laboratory Health Summary Report. • Display EHR Patient Visit. • Use EHR Lab tab: – Most recent. – Cumulative. – All tests by date. – Worksheet. – Graph. – Lab test Status. • Compile Laboratory Test Counts.	
1:00	**Class Activity: View Laboratory Reports on Test System**	**Tab 13**
1:45	**Maintenance of the RPMS Lab Package** **Jennie Chase-Wilson** During this session, participants will access the RPMS LIS and practice. Instructors will be available to answer questions. • Review list of Taskman jobs • Overview and discuss daily, quarterly and annual maintenance	**Tab 14**
2:30	**Break**	
2:45	**Clinical Lab Test Results and Meaningful Use for Laboratory** **Janna Morris** During this session, participants will access the system and practice. Instructors will be available to answer questions. At the end of this session participants should be able to: • Understand the Objective and the Measure • Compare and Contrast Laboratory Package, Reference Lab Interface, Point of Care lab & PCC Data Entry of Structured Laboratory Data • Generate the RPMS Meaningful Use Performance Report for Clinical Lab Test Results • Analyze the logic for the Meaningful Use Clinical Lab Test Performance Report • Discuss the Unintended Consequences of Entering Laboratory Results into PCC Data Entry in the Electronic Health Record Environment • Reference Lab Implementation to meet Stage 2	**Tab 15**
3:45	**iCare Overview** **Janna Morris** • Overview of iCare and its relation to Meaningful Use	
4:30	**Adjourn** • **Wrap-up**	

Day 4 **Thursday**	

8:30	**Morning Greeting** • Questions from yesterday	
8:45	**Reference Lab Interface** **Pam Spaeth** At the end of this session, participants should be able to • Overview the process • Clearly delineate the Preliminary steps required • Contacting Reference Lab Representative • Client needs assessment • Contract negotiation and signed • Reference Lab contacts Cimmaron • Cimmaron places site into Queue • Connectivity Established • Acquire label printers and other required hardware	**Tab 16**
9:45	**Class Activity: Review of Lab Processes** **OIT Lab Consultants** • Order test • Accession test • Run Incomplete Test Status report • Result test • Run Incomplete Test Status report • Look-up results	**Tab 16**
11:30	Lunch	
12:30	**Tips and Tricks** **Jennie Chase-Wilson** • Review of VA Fileman • Review of File 60 • Suggested Small Lab Menu • Review of CPT Code File • Review LOINC Codes • Review Taxonomies	
1:30	• **Review Think Tank** • **Survey Monkey** • **Office Hours**	
4:30	**Adjourn** • Wrap-up	

Biographical Sketches

Janna Morris, MPA, MT(ASCP)
Office of Information Technology EHR Laboratory Consultant
Janna Morris is a Medical Technologist in the United States Public Health Service and has worked in the Indian Health Service since 1982. Janna is a certified Medical Technologist and formally served as the Laboratory Manager at Rapid City Indian Hospital. Janna has been involved in reference lab interfacing since the early 1990s, and is now currently assigned to OIT as a National Laboratory Medical Informatics Consultant.

Pam Spaeth, MT(ASCP)
IHS OIT Laboratory Consultant
Pam is a Medical Technologist, receiving her BS in Medical Technology and Chemistry at Concordia College, in Moorhead, Minnesota. She started her career as the Blood Bank Supervisor at a local hospital, from 1976 until 1988. In 1988 she came to the White Earth Health Center in Ogema, Minnesota as the Laboratory Supervisor. She has supervised the Laboratory for 21 years, until recently accepting the position for one of the OIT ARRA MT Consultants. She was on the first Laboratory team to be trained for the RPMS Lab Package at PIMC in 1995. White Earth went live with that in 1996. She was also the PCC+ lead and one of three CACs for the implementation of EHR, which White Earth has been using since May of 2007. She has been a member of the IHS Laboratory PSG since it began.

Jennette Chase-Wilson, MS, MLS(ASCP)
IHS OIT Laboratory Consultant
Jennette (Jennie) Chase-Wilson received her BS in Microbiology from San Diego State University and interned at Mercy Hospital School of Medical Technology in San Diego. She received her MS in Microbiology from Montana State University. She joined the Indian Health Service in 1986 after 13 years in the private sector. Her experience in IHS has taken her from Ft. Belknap, Montana, to White river Indian Hospital, Arizona, to Yakama Service Unit, Washington, and finally to Warm Springs Health and Wellness Center in Oregon. Jennie served as Infection Control Officer at WSSU and Yakama IHS and was active on many committees throughout the years. Jennie served Portland Area Office as Assistant Project Officer for the Quest Reference Laboratory Contract 2004 - 2009. Jennie has been the Laboratory Supervisor at Warm Springs Health and Wellness Center for 11 years. During her time as lab supervisor, the laboratory became more heavily automated and computerized, expanded staffing, began a NHCA Phlebotomy Training Program, and increased the in-house test menu by 95%. The overall workload expanded more than 100%. Jennie completed the install of RPMS in 1999 in the lab. Electronic Health Records began at Warm Springs in 2004. In 2006, she and her staff developed a procedure in EHR that virtually eliminated "Lab Orphans" at WSSU. In 2007, the installation of the Quest Reference Lab Interface was begun and is now 98% interfaced. This year saw the successful implementation of EHR-POCT. Jennie has been proactive in training and advancement of all phases of POCT, working with the CAC and nursing staff to expand and perfect the process.

Cynthia Perez

Cynthia is a member of the Walker River Paiute Tribe of Schurz, Nevada. She currently has 23 years with the Indian Health Service. She began employment with the Indian Health Service (IHS) in 1979 at the Schurz Service Unit Phoenix Area. Cynthia also worked at the Bemidji Area Indian Health Service in Information Technology. She spent 8 years working in the IT department at the California Area Office. This included working closely with the EHR team, data mining, RPMS training and support to 35+ tribal programs. She has also served as the California Area Office Community Health Representative Coordinator and participated on the national Contract Health Service Workgroup. Cynthia's current position is with the Office of Urban Indian Health Programs as Information Technology Specialist/RPMS and is based out of the OIT Albuquerque Area Office. She is also a member of the RPMS Patient Registration Technical Advisory Group. Cynthia works closely with all Urban Programs nationwide providing RPMS training, support and assists in the implementation of RPMS and EHR.

Contact Information

If you have any questions or comments regarding this distribution, please contact the OIT Help Desk (IHS).

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